

REMARKS

Claims 1-6 and 14-28 are now pending in this application, of which Claims 1, 5 and 6 are independent. Claims 1-6 have been amended to define more clearly what Applicant regards as his invention. Claims 7-13 have been canceled without prejudice or disclaimer. Claims 14-28 have been added to provide Applicant with a more complete scope of protection. Favorable reconsideration is requested.

Claim 6 was rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The Office Action states that the terminology “computer program” alone has no set definition. Applicant has amended the preamble of Claim 6 to recite “A computer program embodied in a computer-readable medium which, when executed, performs an image processing method of compressing and storing image data...”, which is along the lines of the Examiner’s suggestion. Therefore, withdrawal of the rejection under Section 101 is respectfully requested.

Claims 1-5, 7, 12 and 13 were rejected under 35 U.S.C. § 103 as being obvious from Chan et al. (U.S. Patent No. 5,768,481) in view of the applicant’s admitted prior art in the background of the specification; Claims 8 and 11, as being obvious from Chan et al. in view of Trout (U.S. Patent No. 6,301,394); Claim 9, as being obvious from Chan et al. in view of Trout and further in view of the applicant’s admitted prior art in the background of the specification; and Claim 10, as being obvious from Chan et al. in view of Trout and further in view of Umemura (U.S. Patent No. 5,014,198). Applicant traverses these rejections.

Without conceding the propriety of the rejection with respect to Claims 7-13, cancellation of Claims 7-13 renders the rejection thereof moot.

Claim 1 is directed to an image processing apparatus for compressing and storing image data. The apparatus has a division unit adapted to divide the image data into pixel blocks, each pixel block being a group of a predetermined number of pixels. The apparatus also has a compression unit adapted to compress the pixel blocks divided by the division unit. The apparatus also has a generating unit adapted to generate packets of data, each of which corresponds to a pixel block compressed by the compression unit and a header indicative of information regarding the pixel block. The apparatus also has a storage unit adapted to store the packets of data and a packet table indicating a storage address of each pixel block corresponding to each packet generated by the generating unit. The apparatus also has a setting unit adapted to set information, indicating whether a second pixel block corresponding to a packet of interest is different from a first pixel block corresponding to a preceding packet, into the header of the packet of interest. The apparatus also has a storage control unit adapted to store the second pixel block as a part of the packet of interest and store a storage address of the packet of interest in the packet table in the case where the header of the packet of interest indicates that the second pixel block is different from the first pixel block, whereas in the case where the header of the packet of interest indicates that the second pixel block is equal to the first pixel block, not storing the second pixel block in the storage unit, but storing in the packet table a storage address of the preceding packet as a storage address of the packet of interest.

Notably, according to the apparatus of Claim 1, the storage control unit determines whether or not the second pixel block is stored in accordance with whether the header of the packet of interest indicates that the second pixel block is different from the first pixel block. By virtue of the features of Claim 1, it is possible to reduce the amount of memory usage.

Independent Claim 5 is directed to a method of compressing and storing image data. Independent Claim 6 is directed to a computer program, embodied in a computer-readable medium, for compressing and storing image data. Claims 5 and 6 recite many features similar to those discussed above with respect to independent Claim 1.

Each of the independent claims is generally directed to storage controlling such that in a case where the header of the packet of interest indicates that the second pixel block is equal to the first pixel block, the second pixel block is not stored, but a storage address of the preceding packet is stored as a storage address of the second pixel block

Chan et al., as understood by Applicant, relates to a method for compression of a frame. Chan et al. states, from column 25, line 66 to column 26, line 4, the following:

“Further, known compression techniques can be used in conjunction with the compression techniques of the present invention. For example, two successive non-variant blocks can be encoded using a repeat flag, without having to encode the full information for the second and successive blocks.”

The above merely discusses that, if two successive blocks are the same, a repeat flag is used for omitting encoding processing for the subsequent block.

To the contrary, the apparatus of Claim 1 controls whether or not a pixel block of interest is stored, in accordance with a header included in the packet corresponding to this pixel block.

Further, Chan et al. is silent about adding a header to a pixel block. Accordingly, Chan et al. clearly fails to teach or suggest setting information indicating whether a first pixel block is different from a second pixel block as recited in Claim 1.

The examiner states in the Office Action (for example at page 4) that the background at page 1, lines 14-18 and 21-23 of the specification of the present application, discloses the

storage of packets and addresses in a packet table. However, the background does not teach or suggest setting information, indicating whether or not the first pixel block is different from the second pixel block, into a header, as recited in Claim 1. The background also does not teach or suggest controlling of storing or not storing a subsequent pixel block in accordance with the header of the subsequent pixel block.

Nothing in Chan et al. or the background of the specification of the present application, whether considered either separately or in any permissible combination (if any), would teach or suggest (1) storing a second pixel block corresponding to a packet of interest and a storage address of the packet of interest when a header of the packet of interest indicates that the second pixel block is different from the first pixel block corresponding to a preceding packet, and (2) not storing the second pixel block, but storing a storage address of the preceding packet as a storage address of the packet of interest when the header of the packet of interest indicates that the second pixel block is equal to the first pixel block, as recited in Claim 1. Therefore, Claim 1 is believed to be clearly patentable over those reference, whether considered separately or in combination.

As noted above, Claims 5 and 6 recite features similar in many relevant respects to those discussed above with respect to Claim 1. Accordingly, Claims 5 and 6 are believed to be patentable over the art relied on in the Office Action for the reasons discussed above.

A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

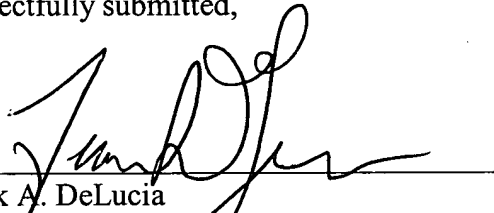
The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same

reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Frank A. DeLucia', is written over a horizontal line.

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